

**To:** McGartland, Al[McGartland.Al@epa.gov]; Axelrad, Daniel[Axelrad.Daniel@epa.gov]; Kim, Jina[Kim.Jina@epa.gov]; Griffiths, Charles[Griffiths.Charles@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Wed 12/9/2015 7:37:53 PM  
**Subject:** FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

FYI – Erik Helm is now participating.

**From:** Corona, Joel  
**Sent:** Wednesday, December 09, 2015 2:36 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Helm, Erik <Helm.Erik@epa.gov>  
**Subject:** FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Hi Chris,

I just added Erik Helm to the meeting invitation to discuss this. He will also be participating for OW.

--

Joel Corona

202-564-0006

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>  
**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum “OP/ORD Collaborative Effort for Advancing Health Benefits” and identifying contacts in your office to participate in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

At the meeting we would like to start with an open-ended discussion on your rulemaking priorities and associated research and analysis needs for better characterizing health benefits. Once we’ve identified a list of needs, we will then together to categorize, prioritize, rank, these needs and also to determine whether they are shorter-term (< 3 years) or longer-term (3+ years) needs.

We are conducting at least five meetings across the Agency and will compile the information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom’s memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We’ve also attached some documents for your reference:

- [REDACTED] Joel and Tom’s October 19<sup>th</sup> memorandum
- [REDACTED] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

## **MEMORANDUM**

**SUBJECT:** OP/ORD Collaborative Effort for Advancing Health Benefits

**FROM:** Joel Beauvais  
Associate Administrator, Office of Policy

Thomas A. Burke  
Deputy Assistant Administrator, Office of Research and Development

**TO:** Janet McCabe  
Assistant Administrator, Office of Air and Radiation

Mathy Stanislaus  
Assistant Administrator, Office of Solid Waste and Emergency Response

James Jones  
Assistant Administrator, Office of Chemical Safety and Pollution Prevention

Ken Kopocis  
Deputy Assistant Administrator, Office of Water

### **Summary**

Benefit-cost analysis plays a critical role in informing and supporting EPA policy decisions. As part of an ongoing effort to strengthen such analysis at EPA, the Office of Policy (OP) and the Office of Research and Development (ORD) have formed a collaborative team of economists, toxicologists, epidemiologists and statisticians to develop methods to greatly improve quantification of the health benefits of EPA regulations. Specifically, the offices will collaborate (both staff and resources) intramurally to provide specific dose-response and valuation estimates that address priority needs of the program offices in the short term, and to improve analytical methods in the longer term, making benefits analysis more fully reflect potential health risks. Some products will be completed by the end of 2016 for use in our Regulatory Impact Analyses (RIAs).

We expect that this effort will significantly improve our capability to capture health benefits from reduced exposures to environmental contaminants as this work is completed – providing a stronger foundation for EPA's ongoing regulatory work across programs. We write to inform you of our current plans, to seek your offices' engagement in helping to guide this initiative, and to request that your office

consider direct participation in partnerships with ORD, OP and other offices to extend and expedite this work.

## **Background**

Benefit-cost analysis is widely employed in evaluating environmental policies and is required by Executive Order and certain statutes. While some environmental policies, particularly those involving criteria air pollutant controls and some toxics (e.g., mercury) have well-developed tools for benefits analysis, for most other contaminants there are fewer tools with which to evaluate the benefits of exposure reductions. Moving forward, it is critical that EPA invest in new methods for quantifying health risks and outcomes, and for valuing changes in these risks and outcomes, in order to ensure that we have the information required to make sound decisions on regulating contaminants. EPA needs risk assessment methods and economic valuation estimates to evaluate policies and actions to reduce exposures to toxic chemicals.

Specifically, EPA needs to develop increased capacity in three key areas:

- (1) Dose-Response Functions: In order for economists to quantify health benefits associated with regulatory actions, a dose-response function is needed to link incremental reductions in pollutant exposures to risk reductions and attendant quantified benefits. For many toxins, however, we are limited to reference doses or reference concentrations used as benchmarks for safe exposure levels. These benchmarks are important but they cannot support quantified health benefits in our economic analyses.
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- (3) Less Certain Hazards: In current practice, only health effects with strong evidence are included in EPA benefits analysis. Inclusion of more uncertain health effects, with appropriate quantitative treatment of the uncertainty, may be consistent with the underlying theory of benefit-cost analysis. We intend to explore issues related to potential quantification and monetization of these more uncertain health effects.

A concerted and sustained effort to advance work in these areas should be a key priority for EPA. It is critical that this effort be undertaken with close collaboration across the agency. OP has responsibility and expertise in environmental economics, ORD has responsibility and expertise in chemical risk assessment, and program offices have responsibility and expertise in integrating economics and risk information to inform risk management decisions. Addressing shortcomings in our ability to quantify and value health benefits clearly requires coordination.

## Details of the OP/ORD Collaboration to Advance Health Benefits Analysis

OP and ORD have agreed to embark on a significant effort in which each will contribute financial and in-kind (staff) resources to a broad-based benefits support and estimation effort. While the development and application of new methods is expected to take several years, applications using existing methods and data will produce outputs that can be used in EPA RIAs by the end of 2016.

This initiative begins with engaging program offices in priority setting in order to (1) determine specific dose-response and valuation needs that can be met with existing data, and (2) scope needs that can be addressed through longer-term research, including application of stated preference valuation methods. In addition, we expect to discuss potential opportunities to collaborate with program offices on priority projects, including through leveraging of staff and/or extramural resources.

We anticipate meeting with program offices through the next 4-6 weeks to discuss priority needs for human health benefits analysis. We would complete our consultations by mid-November and develop specific targets and workplans by early December. OP and ORD will contact Office Directors within programs to coordinate and plan these meetings, including identification of attendees.

From prior discussions we know of some priorities that we would continue to develop, including work underway in OP and via ORD's Human Health Risk Assessment Strategic Research Action Plan:

- Inventory of Non-Cancer Outcomes: Naming conventions and non-cancer health outcome definitions and hazard descriptors are not currently standardized in Agency assessments. We will develop, in FY16, common terms for selected endpoints for both human and animal data used in Integrated Risk Information System (IRIS) assessments and in Integrated Science Assessments (ISAs) to support case studies. This will help make linkages between risk assessment definitions of health outcomes, clinical definitions, and the economically meaningful outcomes needed for benefits analysis. Further, we will evaluate the relative frequency of endpoints in existing health assessments; this scoping of the extent to which specific endpoints arise in health assessments will help inform priorities for economic valuation efforts.
- Dose-Response Functions: Working with support from contractors and, as needed, academic experts, we expect to deliver up to five needed dose-response functions in 2016, which would be available for use in RIAs upon peer review. Experience indicates that health effects utilized for benefit analysis that have already been peer-reviewed by an authoritative body, such as those incorporated into an ISA or IRIS assessment, will facilitate acceptance of the dose-response functions. ORD will examine recently completed assessments and identify data that support dose-response conclusions suitable for benefits analysis.
- Valuing Health Effects: Similarly, with current resources OP anticipates producing up to five needed valuation estimates using cost-of-illness or other approaches within this same timeframe. We already working to develop cost-of-illness estimates for changes in birthweight, a health endpoint potentially associated with multiple contaminants of interest in many programs. We expect draft quantitative estimates to be available in 2016. We hope to engage with program offices to identify potential additional priority areas for which cost-of-illness or other value estimates can be developed.

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- Probabilistic Reference Values: Applying methods that move beyond traditional reference doses to provide probabilistic estimates of risk for non-cancer outcomes. The World Health Organization has published guidance for a probabilistic approach to the derivation of reference doses, which can then yield dose-response relationships for non-cancer health outcomes across a range of exposure levels. Based on the priorities of program offices and available dose-response functions, these methods will initially be applied to selected endpoints from one or more chemicals in the current IRIS database to evaluate the robustness of the approach.
- Health Benefit Valuation through Stated Preference Study: OP will also invest in longer-term stated preference research to address health effects valuation needs where we have no existing data. Stated preference methods can yield valuation estimates of specific health risks and endpoints that cannot otherwise be valued in a manner consistent with applied benefits analysis. Based on the priorities of program offices, and available dose-response functions, OP will develop and implement a stated preference survey to estimate values for one or more priority health endpoints. The survey will be developed during 2016 with results expected in 2017.

Collectively, the projects under this initiative will provide EPA with improved tools and data to quantify the health benefits of national regulatory actions, making EPA’s economic benefits analyses more complete. This will represent a substantial improvement on the current situation, in which benefit quantification efforts are often limited by risk assessment methods and available valuation data.

### **Deliverables and Timetable**

- OP and ORD will develop priorities based on discussions with program offices during fall 2015.
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- Other research and methods development efforts will provide insights to be applied in subsequent applied analyses within the next 5 years.

### **Request for Engagement**

This initiative represents an important opportunity, which we believe can play a key role in supporting regulatory work in each of your programs and across programs. Accordingly, we encourage you to discuss needs for health benefits analysis with your staff and to seek opportunities for engagement and participation. We will be contacting Office Directors shortly to begin discussing this initiative and needs that we can address. In advance, we ask that you please identify people with your offices to participate, consider your dose-response and valuation priorities, and think about contributing staff and resources. We recognize that staff and resource decisions may require more information and we look forward to providing this in advance of meeting. We would also be happy to brief on any specifics of current or planned work upon request.

cc: Avi Garbow, OGC  
Cynthia Giles, OECA  
Elizabeth Shaw, OAR  
Louise Wise, OCSPP  
Barry Breen, OSWER  
Michael Shapiro, OW  
Ruth Etzel, OCHP  
John Vandenberg, ORD  
Al McGartland, OP





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OCT 15 2015

**MEMORANDUM**

**SUBJECT:** OP/ORD Collaborative Effort for Advancing Health Benefits

**FROM:** Joel Beauvais, Associate Administrator  
Office of Policy

Thomas A. Burke, Deputy Assistant Administrator  
Office of Research and Development

**TO:** Janet McCabe, Assistant Administrator  
Office of Air and Radiation

Mathy Stanislaus, Assistant Administrator  
Office of Solid Waste and Emergency Response

James Jones, Assistant Administrator  
Office of Chemical Safety and Pollution Prevention

Ken Kopocis, Deputy Assistant Administrator  
Office of Water

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Benefit-cost analysis plays a critical role in informing and supporting EPA policy decisions. As part of an ongoing effort to strengthen such analysis at EPA, the Office of Policy (OP) and the Office of Research and Development (ORD) have formed a collaborative team of economists, toxicologists, epidemiologists and statisticians to develop methods to greatly improve quantification of the health benefits of EPA regulations. Specifically, the offices will collaborate (both staff and resources) intramurally to provide specific dose-response and valuation estimates that address priority needs of the program offices in the short term, and to improve analytical methods in the longer term, making benefits analysis more fully reflect potential health risks. Some products will be completed by the end of 2016 for use in our Regulatory Impact Analyses (RIAs).

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Cynthia Giles, OECA  
Elizabeth Shaw, OAR  
Louise Wise, OCSPP  
Barry Breen, OSWER  
Michael Shapiro, OW  
Ruth Etzel, OCHP  
John Vandenberg, ORD  
Al McGartland, OP



## **Advancing Health Benefits – Review of needs for Benefits Analysis**

Introduction: As described in the October 15<sup>th</sup> memorandum from Joel Beauvais and Tom Burke, EPA faces important challenges for conducting benefits analysis for health effects, especially non-cancer effects. The purpose of this meeting with your program is to identify where research and analysis are needed assessment is to identify where research is needed for more complete health benefits analyses, including:

- Dose-response functions to quantify changes in health risks
- Valuation estimates (e.g., willingness to pay or cost of illness) for important health endpoints
- Methods or tools to make our analyses more robust and defensible

Participation: The discussion will span human health risk assessment, economics, and program priorities so it will be useful to have participants who can collectively address all three.

Goals: Identify most relevant research and analysis needs for quantifying and valuing health benefits in priority rulemakings or other actions, including methods, tools, data, and results. These needs should take into account current data and tools for conducting risk assessment and economic analysis.

### Meeting Format (1- to 1.5-hour discussion)

1. Open ended discussion of research and analysis needs related to benefits analysis
  - a. Priority regulations or other actions
  - b. Specific needs for benefits assessment for these actions,
    - i. Dose-response functions
    - ii. Valuation estimates
    - iii. Other related needs
  - c. Other barriers to conducting health benefits analysis

*Some discussion questions are attached below*
2. Group open ended responses into categories and sub-categories
3. Prioritize categories
  - a. Shorter-term Research and Analysis Needs (<3 years)
  - b. Longer-term Research and Analysis Needs (more than 3 years)

### Overall Process and Next Steps:

1. Meetings with EPA Program Staff and Managers to identify research and analysis needs and prioritize those needs
2. Summarize the interview results to identify common themes across the Agency, as well as unique needs within offices.
3. Prioritize these needs in terms of feasibility, priority, and impact, with a particular emphasis on needed dose-response functions and valuation estimates.
4. Use dedicated ORD and OP resources and staff, in partnership with programs, to fill these dose-response, valuation, and other needs

### *Suggested Discussion Questions*

- What are your priority rulemakings or other important actions over the next three years? What about after three years? Which chemicals and health endpoints are involved in these actions?
- Generally, what would you say are your most pressing valuation challenges for health benefits? (e.g., no robust values for non-fatal cancer risk, for other specific health endpoints.)
- If you could direct economics research and analysis to value (e.g, by cost-of-illness or willingness to pay) five health endpoints over the next three years which ones would they be?
- Has a lack of authoritative causality finding (e.g., from IRIS or ISA) been a barrier for including any health effects in RIAs? How so?
- Are there health effects that you can currently quantify (e.g., number of cases) in RIAs but do not have values for?
- Are there valuation estimates you currently use that are being challenged or are at the risk of being challenged due, for example, to their age or other concerns?



**To:** Chris Dockins[Dockins.Chris@epa.gov]  
**From:** Axelrad, Daniel  
**Sent:** Mon 10/19/2015 4:39:25 PM  
**Subject:** FW: joint OP/ORD memo for Joel's signature  
ORD OP Health Benefits Memo October 2015.docx

**From:** Kime, Robin  
**Sent:** Monday, October 19, 2015 12:38 PM  
**To:** Axelrad, Daniel <Axelrad.Daniel@epa.gov>  
**Subject:** FW: joint OP/ORD memo for Joel's signature

Hi- You have the .pdf of this- right? Thanks

**From:** Kime, Robin  
**Sent:** Thursday, October 15, 2015 9:58 AM  
**To:** Poole, Jacqueline  
**Subject:** joint OP/ORD memo for Joel's signature

Hi

Attached is a memo for Joel to sign first then to be routed to Tom Burke of ORD to be signed. Then, it will come back to OP and be .pdf'd for Joel to personally email out. Sound OK? Would you print this on EPA letterhead (since it comes from 1 AO office and 1 program office) and give it to Joel to sign? The routing slip would include:

Robin

Joel

Tom Burke, ORD

Please return to OP for email distribution

Thanks!

**To:** Corona, Joel[Corona.Joel@epa.gov]  
**Cc:** Georges, Jessica[Georges.Jessica@epa.gov]; Hewitt, Julie[Hewitt.Julie@epa.gov]; Covington, James[Covington.James@epa.gov]; Strong, Jamie[Strong.Jamie@epa.gov]; Flaherty, Colleen[Flaherty.Colleen@epa.gov]; Swietlik, William[Swietlik.William@epa.gov]; McGartland, Al[McGartland.Al@epa.gov]; Axelrad, Daniel[Axelrad.Daniel@epa.gov]; Bowen, Jennifer[Bowen.Jennifer@epa.gov]; Griffiths, Charles[Griffiths.Charles@epa.gov]; Kim, Jina[Kim.Jina@epa.gov]; Bateson, Thomas[Bateson.Thomas@epa.gov]; Blessinger, Todd[blessinger.todd@epa.gov]; Bussard, David[Bussard.David@epa.gov]; Vandenberg, John[Vandenberg.John@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Wed 11/18/2015 8:30:47 PM  
**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities  
[AHB Meeting format.docx](#)  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[Workshop Summary Final Draft.pdf](#)

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum "OP/ORD Collaborative Effort for Advancing Health Benefits" and identifying contacts in your office to participate in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

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information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom's memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [redacted] Joel and Tom's October 19<sup>th</sup> memorandum
- [redacted] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

**To:** Axelrad, Daniel[Axelrad.Daniel@epa.gov]; Bateson, Thomas[Bateson.Thomas@epa.gov]; Blessinger, Todd[blessinger.todd@epa.gov]; Griffiths, Charles[Griffiths.Charles@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Wed 10/28/2015 12:34:55 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)

From OW, FYI.

- C

**From:** Lousberg, Macara  
**Sent:** Tuesday, October 27, 2015 5:20 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Corona, Joel <Corona.Joel@epa.gov>; Clark, Becki <Clark.Beki@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>  
**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hello Chris. I apologize for being late in responding for the Office of Water. Please include the following OW participants in this effort:

Joel Corona – Water Policy Staff

Julie Hewitt, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington – Office of Science and Technology

Jessica Georges – Office of Ground Water and Drinking Water

If you have any questions please let me know, as Joel is out of the office through next Monday. Thanks.

Macara

Macara Lousberg

Director, Water Policy Staff

U.S. EPA

1200 Pennsylvania Avenue, NW

Washington, DC 20460

[lousberg.macara@epa.gov](mailto:lousberg.macara@epa.gov)

202-564-5576

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Janet, Mathy, Jim, and Ken - I am writing on behalf of Tom Burke and myself to announce the launch of a significant joint effort of OP and ORD to strengthen EPA's work on quantifying health benefits in the context of benefit-cost analysis. We are seeking your engagement and help in this effort, which we expect will provide important support to your offices' ongoing regulatory work to protect public health.

Each of our offices will contribute financial and staff resources to this effort. In particular, we have agreed: (1) in the short term, to collaborate to provide specific dose-response and

valuation estimates that address the priority needs of your offices, and (2) to work to improve analytical methods in the longer term, helping to make benefits analysis more fully reflect potential health risks.

With the attached memo, Tom and I appeal for your involvement to guide this initiative and ask that you consider directly participating with us to extend and expedite this work. We'll start by meeting with your key folks over the next month or so to (1) determine specific dose-response and valuation needs that can be met with existing data, and (2) scope needs that can be addressed through longer-term research. We aim to complete these discussions by mid-November and develop specific targets and workplans by early December.

**By Friday, October 23, please send Chris Dockins** ([dockins.chris@epa.gov](mailto:dockins.chris@epa.gov); 566-2286) **contacts** in your offices that you'd want to have engage in a discussion of your office's dose-response and valuation priorities, as well as opportunities to leverage staff and/or other resources. OP staff will provide more information to help your offices prepare for the meetings. Please feel free to contact me or Tom directly or have your staff contact Chris Dockins with any questions and suggestions for meeting attendees.

We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Helm, Erik[Helm.Erik@epa.gov]  
**From:** Christ, Lisa  
**Sent:** Wed 10/21/2015 2:24:12 PM  
**Subject:** Re: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Erik  
Yes, please let Becki know  
Thanks  
Lisa

Sent from my iPhone

On Oct 21, 2015, at 6:52 AM, Helm, Erik <[Helm.Erik@epa.gov](mailto:Helm.Erik@epa.gov)> wrote:

Can I go ahead talk to Becki and make sure I'm down as a contact?

erik

---

Erik C. Helm, Ph.D.  
Senior Economist  
U.S. Environmental Protection Agency  
OW, OGWDW, SRMD,  
Targeting and Analysis Branch  
Mailing Address:  
Mailcode 4607M  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460  
Physical Address (Package Delivery):  
Room 2227N  
1201 Constitution Avenue, N.W.  
Washington, D.C. 20004  
E-mail: [Helm.Erik@epa.gov](mailto:Helm.Erik@epa.gov)  
Ph: 202-566-1049  
Fax: 202-564-3760

**From:** Corona, Joel  
**Sent:** Tuesday, October 20, 2015 6:35 PM  
**To:** Hewitt, Julie <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)>; Helm, Erik <[Helm.Erik@epa.gov](mailto:Helm.Erik@epa.gov)>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response



Requested

FYI

--

Joel Corona

202-564-0006

**From:** Corona, Joel

**Sent:** Tuesday, October 20, 2015 2:05 PM

**To:** Clark, Becki <[Clark.Beki@epa.gov](mailto:Clark.Beki@epa.gov)>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)>

**Cc:** Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)>

**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Becki/Jeff,

OP and ORD are launching a new effort to advance health benefits quantification, and have requested points of contact within each AA-ship (see email below and attached memorandum). Mike Shapiro has asked that the Water Policy Staff coordinate OW participation. Please share with me by Thursday, October 22, copying Macara, names of people within your office who you would want to have involved in discussing priorities in dose-response and valuation estimates.

Please let me know if you have any questions.

Thanks,

Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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Janet, Mathy, Jim, and Ken - I am writing on behalf of Tom Burke and myself to announce the launch of a significant joint effort of OP and ORD to strengthen EPA's work on quantifying health benefits in the context of benefit-cost analysis. We are seeking your engagement and help in this effort, which we expect will provide important support to your offices' ongoing regulatory work to protect public health.

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With the attached memo, Tom and I appeal for your involvement to guide this initiative and ask that you consider directly participating with us to extend and expedite this work. We'll start by meeting with your key folks over the next month or so to (1) determine specific dose-response and valuation needs that can be met with existing data, and (2) scope needs that can be addressed through longer-term research.

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We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

<OP-ORD Adv.HealthBenefits.pdf>

**To:** Beauvais, Joel[Beauvais.Joel@epa.gov]  
**Cc:** Ohanian, Edward[Ohanian.Edward@epa.gov]; Gilinsky, Ellen[Gilinsky.Ellen@epa.gov]; Bethel, Heidi[Bethel.Heidi@epa.gov]; Grevatt, Peter[Grevatt.Peter@epa.gov]; Southerland, Elizabeth[Southerland.Elizabeth@epa.gov]; Shapiro, Mike[Shapiro.Mike@epa.gov]; Corona, Joel[Corona.Joel@epa.gov]  
**From:** Lousberg, Macara  
**Sent:** Wed 1/6/2016 5:08:14 PM  
**Subject:** Re: Talking Points for ORD's HHRA meeting today

Thanks Joel. FYI, my understanding from Joel Corona is that we (WPS, OST and OGWDW) are meeting with OP and ORD on the Health Benefits Initiative next week - a kick off meeting of sorts. Ed - Joel can provide you with some more info about the effort if you need something for your presentation.

Sent from my iPhone

On Jan 6, 2016, at 11:59 AM, Beauvais, Joel <Beauvais.Joel@epa.gov> wrote:

Thanks, Ellen and Ed. I don't know if/how this is reflected in the HHRA document, but (as I believe is reflected in the last bullet of your talking points), I would like us to strongly support the Health Benefits initiative that OP and ORD have launched (including expanded work on dose-response, cost of illness, probability etc.). This will be critical for OW's ability to quantify health benefits from our work, and it would be great if we could express strong support. Adding Joel Corona and Macara on that point.

Joel

**From:** Ohanian, Edward  
**Sent:** Wednesday, January 06, 2016 11:15 AM  
**To:** Beauvais, Joel <Beauvais.Joel@epa.gov>  
**Cc:** Gilinsky, Ellen <Gilinsky.Ellen@epa.gov>; Bethel, Heidi <Bethel.Heidi@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>  
**Subject:** Talking Points for ORD's HHRA meeting today

Hi Joel,

Per your request through Heidi this AM, I am attaching my draft talking points for a 4-minute presentation based on the feedback I received from OST and OGWDW on ORD's

presentation (attached) earlier. Since I also serve as the Risk Assessment Forum's chair, I added a bullet on the potential role of HHRA in supporting RAF efforts to promote new/improved risk assessment methodologies (which OW will benefit from). Thanks, Ed

Edward V. Ohanian, Ph.D.

Associate Director for Science

Office of Water (MC: 4301T)

(202) 566-1117 (Voice)

(202) 566-0441(Fax)

**To:** Beauvais, Joel[Beauvais.Joel@epa.gov]; Ohanian, Edward[Ohanian.Edward@epa.gov]  
**Cc:** Bethel, Heidi[Bethel.Heidi@epa.gov]; Grevatt, Peter[Grevatt.Peter@epa.gov]; Southerland, Elizabeth[Southerland.Elizabeth@epa.gov]; Shapiro, Mike[Shapiro.Mike@epa.gov]; Lousberg, Macara[Lousberg.Macara@epa.gov]; Corona, Joel[Corona.Joel@epa.gov]  
**From:** Gilinsky, Ellen  
**Sent:** Wed 1/6/2016 5:00:30 PM  
**Subject:** RE: Talking Points for ORD's HHRA meeting today

Will do

## Ellen Gilinsky

Ellen Gilinsky, Ph.D.

Senior Policy Advisor

Office of Water

1200 Pennsylvania Ave, NW

Room 3219B EPA East, MC 4101M

Washington, DC 20460

Phone: 202-564-2549

Cell: 202-236-6882

Email: Gilinsky.ellen@epa.gov

**From:** Beauvais, Joel

**Sent:** Wednesday, January 06, 2016 12:00 PM

**To:** Ohanian, Edward <Ohanian.Edward@epa.gov>

**Cc:** Gilinsky, Ellen <Gilinsky.Ellen@epa.gov>; Bethel, Heidi <Bethel.Heidi@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>; Corona, Joel <Corona.Joel@epa.gov>

**Subject:** RE: Talking Points for ORD's HHRA meeting today

Thanks, Ellen and Ed. I don't know if/how this is reflected in the HHRA document, but (as I believe is reflected in the last bullet of your talking points), I would like us to strongly support the Health Benefits initiative that OP and ORD have launched (including expanded work on dose-response, cost of illness, probability etc.). This will be critical for OW's ability to quantify health benefits from our work, and it would be great if we could express strong support. Adding Joel Corona and Macara on that point.

Joel

**From:** Ohanian, Edward  
**Sent:** Wednesday, January 06, 2016 11:15 AM  
**To:** Beauvais, Joel <[Beauvais.Joel@epa.gov](mailto:Beauvais.Joel@epa.gov)>  
**Cc:** Gilinsky, Ellen <[Gilinsky.Ellen@epa.gov](mailto:Gilinsky.Ellen@epa.gov)>; Bethel, Heidi <[Bethel.Heidi@epa.gov](mailto:Bethel.Heidi@epa.gov)>; Grevatt, Peter <[Grevatt.Peter@epa.gov](mailto:Grevatt.Peter@epa.gov)>; Southerland, Elizabeth <[Southerland.Elizabeth@epa.gov](mailto:Southerland.Elizabeth@epa.gov)>; Shapiro, Mike <[Shapiro.Mike@epa.gov](mailto:Shapiro.Mike@epa.gov)>  
**Subject:** Talking Points for ORD's HHRA meeting today

Hi Joel,

Per your request through Heidi this AM, I am attaching my draft talking points for a 4-minute presentation based on the feedback I received from OST and OGWDW on ORD's presentation (attached) earlier. Since I also serve as the Risk Assessment Forum's chair, I added a bullet on the potential role of HHRA in supporting RAF efforts to promote new/improved risk assessment methodologies (which OW will benefit from). Thanks, Ed

Edward V. Ohanian, Ph.D.

Associate Director for Science

Office of Water (MC: 4301T)

(202) 566-1117 (Voice)

(202) 566-0441(Fax)





**To:** Ohanian, Edward[Ohanian.Edward@epa.gov]  
**Cc:** Gilinsky, Ellen[Gilinsky.Ellen@epa.gov]; Bethel, Heidi[Bethel.Heidi@epa.gov]; Grevatt, Peter[Grevatt.Peter@epa.gov]; Southerland, Elizabeth[Southerland.Elizabeth@epa.gov]; Shapiro, Mike[Shapiro.Mike@epa.gov]; Lousberg, Macara[Lousberg.Macara@epa.gov]; Corona, Joel[Corona.Joel@epa.gov]  
**From:** Beauvais, Joel  
**Sent:** Wed 1/6/2016 4:59:52 PM  
**Subject:** RE: Talking Points for ORD's HHRA meeting today

Thanks, Ellen and Ed. I don't know if/how this is reflected in the HHRA document, but (as I believe is reflected in the last bullet of your talking points), I would like us to strongly support the Health Benefits initiative that OP and ORD have launched (including expanded work on dose-response, cost of illness, probability etc.). This will be critical for OW's ability to quantify health benefits from our work, and it would be great if we could express strong support. Adding Joel Corona and Macara on that point.

Joel

**From:** Ohanian, Edward  
**Sent:** Wednesday, January 06, 2016 11:15 AM  
**To:** Beauvais, Joel <Beauvais.Joel@epa.gov>  
**Cc:** Gilinsky, Ellen <Gilinsky.Ellen@epa.gov>; Bethel, Heidi <Bethel.Heidi@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>  
**Subject:** Talking Points for ORD's HHRA meeting today

Hi Joel,

Per your request through Heidi this AM, I am attaching my draft talking points for a 4-minute presentation based on the feedback I received from OST and OGWDW on ORD's presentation (attached) earlier. Since I also serve as the Risk Assessment Forum's chair, I added a bullet on the potential role of HHRA in supporting RAF efforts to promote new/improved risk assessment methodologies (which OW will benefit from). Thanks, Ed

Edward V. Ohanian, Ph.D.

Associate Director for Science

Office of Water (MC: 4301T)

(202) 566-1117 (Voice)

(202) 566-0441(Fax)

**To:** Corona, Joel[Corona.Joel@epa.gov]  
**From:** Lousberg, Macara  
**Sent:** Tue 1/5/2016 2:21:15 PM  
**Subject:** RE: FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Any progress on this yet? Has the OW meeting with OP and ORD happened?

**From:** Corona, Joel  
**Sent:** Wednesday, November 18, 2015 6:34 PM  
**To:** Lape, Jeff <lape.jeff@epa.gov>; Clark, Becki <Clark.Beki@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; Covington, James <Covington.James@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Evalenko, Sandy <Evalenko.Sandy@epa.gov>  
**Subject:** FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Waiting on an initial meeting invite to discuss "your rulemaking priorities and associated research and analysis needs for better characterizing health benefits."

--

Joel Corona | Economist

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>  
**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum "OP/ORD Collaborative Effort for Advancing Health Benefits" and identifying contacts in your office to participate in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

At the meeting we would like to start with an open-ended discussion on your rulemaking priorities and associated research and analysis needs for better characterizing health benefits. Once we've identified a list of needs, we will then together to categorize, prioritize, rank, these needs and also to determine whether they are shorter-term (< 3 years) or longer-term (3+ years) needs.

We are conducting at least five meetings across the Agency and will compile the information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom's memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [REDACTED] Joel and Tom's October 19<sup>th</sup> memorandum

- Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

**To:** Hewitt, Julie[Hewitt.Julie@epa.gov]  
**Cc:** Corona, Joel[Corona.Joel@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Tue 12/22/2015 1:30:54 AM  
**Subject:** RE: Two meetings scheduled for OP/ORD Human Health Benefits and OW priorities?

Thanks for letting me know, Julie. I hadn't realized that there were two meetings. I will work this out with Natalie Durham (Al's scheduler) although that probably won't be until next week.

Hope you have a great holiday!

- C

**From:** Hewitt, Julie  
**Sent:** Monday, December 21, 2015 4:53 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Corona, Joel <Corona.Joel@epa.gov>  
**Subject:** Two meetings scheduled for OP/ORD Human Health Benefits and OW priorities?

Hey Chris,

I am trying to get on top of my January calendar, and noticed that I have two occurrences of meetings related to the OP/ORD human health benefits project and OW's priorities. One is January 12<sup>th</sup> from 3:30 to 4:30, and the other is January 13<sup>th</sup> from 12:30 to 1:30. There's a lot of, though not perfect, overlap in the attendees for these two meetings. Can you help me figure out which is the real one, or help people in OW understand the difference if there really are two meetings?

Thanks,

Julie

**To:** Dockins, Chris[Dockins.Chris@epa.gov]  
**Cc:** Corona, Joel[Corona.Joel@epa.gov]  
**From:** Hewitt, Julie  
**Sent:** Mon 12/21/2015 9:53:09 PM  
**Subject:** Two meetings scheduled for OP/ORD Human Health Benefits and OW priorities?

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**To:** Corona, Joel[Corona.Joel@epa.gov]  
**Cc:** Helm, Erik[Helm.Erik@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Wed 12/9/2015 7:36:58 PM  
**Subject:** RE: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

That's great, Joel. Thank you.

Erik – looking forward to discussing things with you.

- C

**From:** Corona, Joel  
**Sent:** Wednesday, December 09, 2015 2:36 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Helm, Erik <Helm.Erik@epa.gov>  
**Subject:** FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Hi Chris,

I just added Erik Helm to the meeting invitation to discuss this. He will also be participating for OW.

--

Joel Corona

202-564-0006

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>;



Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>

**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

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Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [REDACTED] Joel and Tom's October 19<sup>th</sup> memorandum
- [REDACTED] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

**To:** Corona, Joel[Corona.Joel@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Thur 11/12/2015 3:00:21 PM  
**Subject:** Health Benefits follow-up  
[Research needs cover email 10.27.15.docx](#)  
[Meeting format 10.27.15.docx](#)

Good to talk with you on this, Joel, and we're looking forward to talking more in depth with everyone at OW. As an FYI, here are the documents I mentioned. We'll finalize these in the next few days and include them with a meeting invite. Please do call or email with any questions, etc. in the meantime.

Best,

- C

**To:** Lousberg, Macara[Lousberg.Macara@epa.gov]  
**Cc:** Corona, Joel[Corona.Joel@epa.gov]; Clark, Becki[Clark.Beki@epa.gov]; Lape, Jeff[lape.jeff@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Wed 10/28/2015 12:34:11 PM  
**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Thank you, Macara. We'll work to get this set up now and are looking forward to the discussion.

Best,

- C

202-566-2286

Chris Dockins

OP/NCEE

**From:** Lousberg, Macara  
**Sent:** Tuesday, October 27, 2015 5:20 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Corona, Joel <Corona.Joel@epa.gov>; Clark, Becki <Clark.Beki@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>  
**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hello Chris. I apologize for being late in responding for the Office of Water. Please include the following OW participants in this effort:

Joel Corona – Water Policy Staff

Julie Hewitt, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington – Office of Science and Technology

Jessica Georges – Office of Ground Water and Drinking Water

If you have any questions please let me know, as Joel is out of the office through next Monday.  
Thanks.

Macara

Macara Lousberg

Director, Water Policy Staff

U.S. EPA

1200 Pennsylvania Avenue, NW

Washington, DC 20460

[lousberg.macara@epa.gov](mailto:lousberg.macara@epa.gov)

202-564-5576

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Dockins, Chris[Dockins.Chris@epa.gov]  
**Cc:** Corona, Joel[Corona.Joel@epa.gov]; Clark, Becki[Clark.Beki@epa.gov]; Lape, Jeff[lape.jeff@epa.gov]  
**From:** Lousberg, Macara  
**Sent:** Tue 10/27/2015 9:19:37 PM  
**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)

Hello Chris. I apologize for being late in responding for the Office of Water. Please include the following OW participants in this effort:

Joel Corona – Water Policy Staff

Julie Hewitt, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington – Office of Science and Technology

Jessica Georges – Office of Ground Water and Drinking Water

If you have any questions please let me know, as Joel is out of the office through next Monday. Thanks.

Macara

Macara Lousberg

Director, Water Policy Staff

U.S. EPA

1200 Pennsylvania Avenue, NW

Washington, DC 20460

[lousberg.macara@epa.gov](mailto:lousberg.macara@epa.gov)

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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**To:** Corona, Joel[Corona.Joel@epa.gov]; Lousberg, Macara[Lousberg.Macara@epa.gov]  
**Cc:** Conerly, Octavia[Conerly.Octavia@epa.gov]; Lape, Jeff[lape.jeff@epa.gov]; Southerland, Elizabeth[Southerland.Elizabeth@epa.gov]; Behl, Betsy[Behl.Betsy@epa.gov]; Wood, Robert[Wood.Robert@epa.gov]; Flaherty, Colleen[Flaherty.Colleen@epa.gov]; Zipf, Lynn[Zipf.Lynn@epa.gov]; Goodwin, Janet[Goodwin.Janet@epa.gov]  
**From:** Hewitt, Julie  
**Sent:** Thur 10/22/2015 10:33:24 PM  
**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Joel/Macara,

OST's participants in the short run discussions with OP and ORD include myself, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington. Thanks for including us.

Julie

**From:** Lape, Jeff  
**Sent:** Wednesday, October 21, 2015 5:42 AM  
**To:** Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Behl, Betsy <Behl.Betsy@epa.gov>; Wood, Robert <Wood.Robert@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Zipf, Lynn <Zipf.Lynn@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Goodwin, Janet <Goodwin.Janet@epa.gov>  
**Cc:** Conerly, Octavia <Conerly.Octavia@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

The attached memo from Joel Beauvais and Tom Burke initiates a "collaborative effort to advance health benefits". OW is seeking OST's representation and participation. I suggest Julie, with HECD's input, determine who and how we should engage.

**From:** Corona, Joel  
**Sent:** Tuesday, October 20, 2015 2:05 PM  
**To:** Clark, Becki <Clark.Beki@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>  
**Cc:** Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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Please let me know if you have any questions.

Thanks,

Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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Best,

Joel and Tom

**To:** Corona, Joel[Corona.Joel@epa.gov]; McGartland, Al[McGartland.Al@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Tue 10/20/2015 1:40:40 PM  
**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Joel –

We are really looking forward to talking with you and others in OW about this.

We don't have specific expectations about financial contributions across offices, but wanted to raise it as something to discuss when we meet with each of you. We may identify some valuable work to collaborate on and where we want to combine resources. Through the course of these discussion we may find things that multiple offices may want to contribute to.

The workshop and related activities were part of the long gestation for this OP/ORD agreement and initiative. Erik was a big help with planning that workshop.

We'll follow up shortly with you, but in the meantime please feel free to email additional questions or give me a call to discuss.

Best,

- C

**From:** Corona, Joel  
**Sent:** Tuesday, October 20, 2015 9:10 AM  
**To:** McGartland, Al <McGartland.Al@epa.gov>; Dockins, Chris <Dockins.Chris@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Al/Chris,

I was copied on the launch of the Health Benefits Quantification effort. This is great news.

Do you have a sense of the financial contribution (per office) Joel discusses in his email? Has there been OW participation leading up to this launch? (what comes to mind to me is the work Chris and others were doing with NCEA (non-cancer benefits workshop), which I believe Erik Helm may have participated in, but I don't know how related the two effort are)

--

Joel Corona

202-564-0006

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**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Lousberg, Macara[Lousberg.Macara@epa.gov]  
**From:** Corona, Joel  
**Sent:** Tue 1/5/2016 2:27:19 PM  
**Subject:** RE: FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

It's scheduled for Wednesday 1/13 at 12:30pm. Betsy and Peter were invited, in addition to the staff level contacts.

--

Joel Corona

202-564-0006

**From:** Lousberg, Macara  
**Sent:** Tuesday, January 05, 2016 9:21 AM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Subject:** RE: FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Any progress on this yet? Has the OW meeting with OP and ORD happened?

**From:** Corona, Joel  
**Sent:** Wednesday, November 18, 2015 6:34 PM  
**To:** Lape, Jeff <lape.jeff@epa.gov>; Clark, Becki <Clark.Beki@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; Covington, James <Covington.James@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Evalenko, Sandy <Evalenko.Sandy@epa.gov>  
**Subject:** FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Waiting on an initial meeting invite to discuss "your rulemaking priorities and associated research and analysis needs for better characterizing health benefits."

--



Joel Corona | Economist

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Dockins, Chris

**Sent:** Wednesday, November 18, 2015 3:31 PM

**To:** Corona, Joel <[Corona.Joel@epa.gov](mailto:Corona.Joel@epa.gov)>

**Cc:** Georges, Jessica <[Georges.Jessica@epa.gov](mailto:Georges.Jessica@epa.gov)>; Hewitt, Julie <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)>; Covington, James <[Covington.James@epa.gov](mailto:Covington.James@epa.gov)>; Strong, Jamie <[Strong.Jamie@epa.gov](mailto:Strong.Jamie@epa.gov)>; Flaherty, Colleen <[Flaherty.Colleen@epa.gov](mailto:Flaherty.Colleen@epa.gov)>; Swietlik, William <[Swietlik.William@epa.gov](mailto:Swietlik.William@epa.gov)>; McGartland, Al <[McGartland.Al@epa.gov](mailto:McGartland.Al@epa.gov)>; Axelrad, Daniel <[Axelrad.Daniel@epa.gov](mailto:Axelrad.Daniel@epa.gov)>; Bowen, Jennifer <[Bowen.Jennifer@epa.gov](mailto:Bowen.Jennifer@epa.gov)>; Griffiths, Charles <[Griffiths.Charles@epa.gov](mailto:Griffiths.Charles@epa.gov)>; Kim, Jina <[Kim.Jina@epa.gov](mailto:Kim.Jina@epa.gov)>; Bateson, Thomas <[Bateson.Thomas@epa.gov](mailto:Bateson.Thomas@epa.gov)>; Blessinger, Todd <[blessinger.todd@epa.gov](mailto:blessinger.todd@epa.gov)>; Bussard, David <[Bussard.David@epa.gov](mailto:Bussard.David@epa.gov)>; Vandenberg, John <[Vandenberg.John@epa.gov](mailto:Vandenberg.John@epa.gov)>

**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum "OP/ORD Collaborative Effort for Advancing Health Benefits" and identifying contacts in your office to participate in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

At the meeting we would like to start with an open-ended discussion on your rulemaking

priorities and associated research and analysis needs for better characterizing health benefits. Once we've identified a list of needs, we will then together to categorize, prioritize, rank, these needs and also to determine whether they are shorter-term (< 3 years) or longer-term (3+ years) needs.

We are conducting at least five meetings across the Agency and will compile the information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom's memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [redacted] Joel and Tom's October 19<sup>th</sup> memorandum
- [redacted] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

**To:** Dockins, Chris[Dockins.Chris@epa.gov]  
**From:** Corona, Joel  
**Sent:** Wed 11/18/2015 11:27:25 PM  
**Subject:** RE: Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Thanks Chris. We'll be on the lookout for the meeting invite.

--

Joel Corona

202-564-0006

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>  
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- C

Chris Dockins

OP/NCEE

**To:** Hewitt, Julie[Hewitt.Julie@epa.gov]; Helm, Erik[Helm.Erik@epa.gov]  
**From:** Corona, Joel  
**Sent:** Tue 10/20/2015 10:34:47 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)

FYI

--

Joel Corona

202-564-0006

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**To:** Clark, Becki <Clark.Beki@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>  
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Thanks,

Joel

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Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

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**Cc:** Lousberg, Macara[Lousberg.Macara@epa.gov]  
**From:** Corona, Joel  
**Sent:** Tue 10/20/2015 6:04:39 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
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Water Policy Staff | Office of Water | US EPA

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Joel and Tom

**To:** McGartland, Al[McGartland.Al@epa.gov]; Dockins, Chris[Dockins.Chris@epa.gov]  
**From:** Corona, Joel  
**Sent:** Tue 10/20/2015 1:09:44 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[ATT00001.htm](#)

Hi Al/Chris,

I was copied on the launch of the Health Benefits Quantification effort. This is great news.

Do you have a sense of the financial contribution (per office) Joel discusses in his email? Has there been OW participation leading up to this launch? (what comes to mind to me is the work Chris and others were doing with NCEA (non-cancer benefits workshop), which I believe Erik Helm may have participated in, but I don't know how related the two effort are)

--

Joel Corona

202-564-0006

**From:** Beauvais, Joel  
**Sent:** Monday, October 19, 2015 12:26 PM  
**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken  
**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin  
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Janet, Mathy, Jim, and Ken - I am writing on behalf of Tom Burke and myself to announce the launch of a significant joint effort of OP and ORD to strengthen EPA's work on quantifying health benefits in the context of benefit-cost analysis. We are seeking your engagement and help in this effort, which we expect will provide important support to your offices' ongoing regulatory work to protect public health.

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**By Friday, October 23, please send Chris Dockins** ([dockins.chris@epa.gov](mailto:dockins.chris@epa.gov); 566-2286) **contacts** in your offices that you'd want to have engage in a discussion of your office's dose-response and valuation priorities, as well as opportunities to leverage staff and/or other resources. OP staff will provide more information to help your offices prepare for the meetings. Please feel free to contact me or Tom directly or have your staff contact Chris Dockins with any questions and suggestions for meeting attendees.

We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Lape, Jeff[lape.jeff@epa.gov]; Clark, Becki[Clark.Becki@epa.gov]; Shapiro, Mike[Shapiro.Mike@epa.gov]; Lousberg, Macara[Lousberg.Macara@epa.gov]  
**Cc:** Georges, Jessica[Georges.Jessica@epa.gov]; Hewitt, Julie[Hewitt.Julie@epa.gov]; Swietlik, William[Swietlik.William@epa.gov]; Covington, James[Covington.James@epa.gov]; Flaherty, Colleen[Flaherty.Colleen@epa.gov]; Strong, Jamie[Strong.Jamie@epa.gov]; Evalenko, Sandy[Evalenko.Sandy@epa.gov]  
**From:** Corona, Joel  
**Sent:** Wed 11/18/2015 11:33:56 PM  
**Subject:** FYI-FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities  
[AHB Meeting format.docx](#)  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[Workshop Summary Final Draft.pdf](#)

Waiting on an initial meeting invite to discuss “your rulemaking priorities and associated research and analysis needs for better characterizing health benefits.”

--

Joel Corona | Economist

Water Policy Staff | Office of Water | US EPA

202-564-0006 | corona.joel@epa.gov

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>  
**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum “OP/ORD Collaborative Effort for Advancing Health Benefits” and identifying contacts in your office to participate

in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

At the meeting we would like to start with an open-ended discussion on your rulemaking priorities and associated research and analysis needs for better characterizing health benefits. Once we've identified a list of needs, we will then together to categorize, prioritize, rank, these needs and also to determine whether they are shorter-term (< 3 years) or longer-term (3+ years) needs.

We are conducting at least five meetings across the Agency and will compile the information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom's memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [REDACTED] Joel and Tom's October 19<sup>th</sup> memorandum
- [REDACTED] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE



**To:** Harper, Ashley[harper.ashley@epa.gov]  
**From:** Flaherty, Colleen  
**Sent:** Thur 10/22/2015 4:59:52 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[ATT00001.htm](#)

**From:** Hewitt, Julie  
**Sent:** Wednesday, October 21, 2015 5:57 PM  
**To:** Strong, Jamie <Strong.Jamie@epa.gov>  
**Cc:** Flaherty, Colleen <Flaherty.Colleen@epa.gov>  
**Subject:** Fwd: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Jeff has charged me with responding to this request from OP and ORD via Mike Shapiro, who specifically mentioned involving HECD.

There is a 4 page memo attached, but if you don't have time to read it, I can summarize it for you quickly tomorrow. I would like to set up a 1/2 hour meeting on Thursday to discuss our response, which likely includes someone from Jamie's branch. As soon as EZTech returns control of my computer back to me, I will send an invitation. :-)

Sent from my iPhone

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**Date:** October 21, 2015 at 5:41:54 AM EDT  
**To:** "Southerland, Elizabeth" <Southerland.Elizabeth@epa.gov>, "Behl, Betsy" <Behl.Betsy@epa.gov>, "Wood, Robert" <Wood.Robert@epa.gov>, "Flaherty, Colleen" <Flaherty.Colleen@epa.gov>, "Zipf, Lynn" <Zipf.Lynn@epa.gov>, "Hewitt, Julie" <Hewitt.Julie@epa.gov>, "Goodwin, Janet" <Goodwin.Janet@epa.gov>  
**Cc:** "Conerly, Octavia" <Conerly.Octavia@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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**Sent:** Tuesday, October 20, 2015 2:05 PM

**To:** Clark, Becki <[Clark.BECKI@epa.gov](mailto:Clark.BECKI@epa.gov)>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)>

**Cc:** Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)>

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Please let me know if you have any questions.

Thanks,

Joel

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Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

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Best,

Joel and Tom

**To:** Flaherty, Colleen[Flaherty.Colleen@epa.gov]  
**From:** Strong, Jamie  
**Sent:** Fri 10/23/2015 12:55:31 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

I thought we were including Ashley?

**From:** Hewitt, Julie  
**Sent:** Thursday, October 22, 2015 6:49 PM  
**To:** Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

In the end, I listed both of you, because I figured if Jamie's schedule really didn't allow, then Colleen would already have any/all associated emails and Jamie wouldn't have to forward.

I also had another thought after we met, which is whether human health endpoints from HABs ought to be on the list of things we address. And then I wasn't even sure if Lesley D'Anglada was in Jamie's branch. However, I didn't add her name, thinking that might be something OGWDW would consider as part of their response to Joel and Macara. Or maybe not.

I added James and Bill because they worked on the Steam Electric ELG, and that's not only the most recent rule in EAD, but had the most significant human health benefits of recent EAD rules. Also, there were some human health categories that we quantified but did not monetize (i.e., had some form of d-r function), and may have been some that we described but lacked d-r information.

**From:** Hewitt, Julie  
**Sent:** Thursday, October 22, 2015 6:33 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Cc:** Conerly, Octavia <Conerly.Octavia@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Behl, Betsy <Behl.Betsy@epa.gov>; Wood, Robert <Wood.Robert@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Zipf, Lynn <Zipf.Lynn@epa.gov>; Goodwin, Janet <Goodwin.Janet@epa.gov>

**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Joel/Macara,

OST's participants in the short run discussions with OP and ORD include myself, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington. Thanks for including us.

Julie

**From:** Lape, Jeff

**Sent:** Wednesday, October 21, 2015 5:42 AM

**To:** Southerland, Elizabeth <[Southerland.Elizabeth@epa.gov](mailto:Southerland.Elizabeth@epa.gov)>; Behl, Betsy <[Behl.Betsy@epa.gov](mailto:Behl.Betsy@epa.gov)>; Wood, Robert <[Wood.Robert@epa.gov](mailto:Wood.Robert@epa.gov)>; Flaherty, Colleen <[Flaherty.Colleen@epa.gov](mailto:Flaherty.Colleen@epa.gov)>; Zipf, Lynn <[Zipf.Lynn@epa.gov](mailto:Zipf.Lynn@epa.gov)>; Hewitt, Julie <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)>; Goodwin, Janet <[Goodwin.Janet@epa.gov](mailto:Goodwin.Janet@epa.gov)>

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**Subject:** Fwd: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
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Each of our offices will contribute financial and staff resources to this effort. In particular, we have agreed: (1) in the short term, to collaborate to provide specific dose-response and valuation estimates that address the priority needs of your offices, and (2) to work to improve analytical methods in the longer term, helping to make benefits analysis more fully reflect potential health risks.

With the attached memo, Tom and I appeal for your involvement to guide this initiative and ask that you consider directly participating with us to extend and expedite this work. We'll start by meeting with your key folks over the next month or so to (1) determine specific dose-response and valuation needs that can be met with existing data, and (2) scope needs that can be addressed through longer-term research. We aim to complete these discussions by mid-November and develop specific targets and workplans by early December.

**By Friday, October 23, please send Chris Dockins** ([dockins.chris@epa.gov](mailto:dockins.chris@epa.gov); 566-2286) **contacts** in your offices that you'd want to have engage in a discussion of your office's dose-response and valuation priorities, as well as opportunities to leverage staff and/or other resources. OP staff will provide more information to help your offices prepare for the meetings. Please feel free to contact me or Tom directly or have your staff contact Chris Dockins with any questions and suggestions for meeting attendees.

We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Durham, Natalie[Durham.Natalie@epa.gov]  
**From:** Dockins, Chris  
**Sent:** Mon 12/28/2015 3:57:09 PM  
**Subject:** FW: Two meetings scheduled for OP/ORD Human Health Benefits and OW priorities?

Hi Natalie –

I see what Julie is referring to here. I think maybe we scheduled the priorities meeting with OW twice. I know we didn't plan on two meetings with them.

Can you cancel one of these two? I'd prefer to keep the one on Wednesday. It seems to be more inclusive. More importantly, Laura has just requested a pre-brief meeting that conflicts with the Tuesday meeting. Both Charles and I should attend the meeting with Laura.

Thank you – hope you had a great Christmas.

- C

**From:** Hewitt, Julie  
**Sent:** Monday, December 21, 2015 4:53 PM  
**To:** Dockins, Chris <Dockins.Chris@epa.gov>  
**Cc:** Corona, Joel <Corona.Joel@epa.gov>  
**Subject:** Two meetings scheduled for OP/ORD Human Health Benefits and OW priorities?

Hey Chris,

I am trying to get on top of my January calendar, and noticed that I have two occurrences of meetings related to the OP/ORD human health benefits project and OW's priorities. One is January 12<sup>th</sup> from 3:30 to 4:30, and the other is January 13<sup>th</sup> from 12:30 to 1:30. There's a lot of, though not perfect, overlap in the attendees for these two meetings. Can you help me figure out which is the real one, or help people in OW understand the difference if there really are two meetings?

Thanks,

Julie





**To:** Dockins, Chris[Dockins.Chris@epa.gov]  
**Cc:** Helm, Erik[Helm.Erik@epa.gov]  
**From:** Corona, Joel  
**Sent:** Wed 12/9/2015 7:35:55 PM  
**Subject:** FW: Advancing Health Benefits - OW/OP/ORD Meeting on priorities  
[AHB Meeting format.docx](#)  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[Workshop Summary Final Draft.pdf](#)

Hi Chris,

I just added Erik Helm to the meeting invitation to discuss this. He will also be participating for OW.

--

Joel Corona

202-564-0006

**From:** Dockins, Chris  
**Sent:** Wednesday, November 18, 2015 3:31 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>  
**Cc:** Georges, Jessica <Georges.Jessica@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Covington, James <Covington.James@epa.gov>; Strong, Jamie <Strong.Jamie@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Swietlik, William <Swietlik.William@epa.gov>; McGartland, Al <McGartland.Al@epa.gov>; Axelrad, Daniel <Axelrad.Daniel@epa.gov>; Bowen, Jennifer <Bowen.Jennifer@epa.gov>; Griffiths, Charles <Griffiths.Charles@epa.gov>; Kim, Jina <Kim.Jina@epa.gov>; Bateson, Thomas <Bateson.Thomas@epa.gov>; Blessinger, Todd <blessinger.todd@epa.gov>; Bussard, David <Bussard.David@epa.gov>; Vandenberg, John <Vandenberg.John@epa.gov>  
**Subject:** Advancing Health Benefits - OW/OP/ORD Meeting on priorities

Dear Joel,

Thank you for responding to the October 15<sup>th</sup> memorandum "OP/ORD Collaborative Effort for Advancing Health Benefits" and identifying contacts in your office to participate in initial meetings to identify priorities.

From your office we have the following attendees in addition to yourself:

- [REDACTED] OGWDW: Jessica Georges
- [REDACTED] OST: Julie Hewitt, James Covington, Jamie Strong, Colleen Flaherty, Bill Swietlik

We would like to hold a 1- to 1½- hour meeting with your office within the next few weeks or as soon as schedules permit.

At the meeting we would like to start with an open-ended discussion on your rulemaking priorities and associated research and analysis needs for better characterizing health benefits. Once we've identified a list of needs, we will then together to categorize, prioritize, rank, these needs and also to determine whether they are shorter-term (< 3 years) or longer-term (3+ years) needs.

We are conducting at least five meetings across the Agency and will compile the information in order to identify common needs and better set Agency priorities. We will share this with you and, as described in Joel and Tom's memorandum, OP and ORD will conduct analysis to address these needs, hopefully in partnership with all the program offices.

Attached here is an outline for the meeting. We've also attached some documents for your reference:

- [REDACTED] Joel and Tom's October 19<sup>th</sup> memorandum
- [REDACTED] Report from 2013 Agency workshop on health benefits

Please look for a meeting invitation soon. We will cc: the associated Office Directors, too. In the meantime, please contact me (202-566-2286) if you have questions or would like more information.

Thank you for your participation.

- C

Chris Dockins

OP/NCEE

**To:** Helm, Erik[Helm.Erik@epa.gov]  
**From:** Galada, Heather  
**Sent:** Wed 1/6/2016 7:00:28 PM  
**Subject:** RE: Talking Points for ORD's HHRA meeting today

Hi Erik,

If there's anything you think I should bring up or have on the back-burner if they ask, please let me know. I just called in so email would be best ☺ Thanks!!

Heather Galada

US EPA, Office of Groundwater & Drinking Water

ph. 202.564.5248

**From:** Burneson, Eric  
**Sent:** Wednesday, January 06, 2016 1:01 PM  
**To:** Galada, Heather <Galada.Heather@epa.gov>  
**Cc:** Helm, Erik <Helm.Erik@epa.gov>; Oshida, Phil <Oshida.Phil@epa.gov>; Christ, Lisa <Christ.Lisa@epa.gov>; Rotert, Kenneth <Rotert.Kenneth@epa.gov>  
**Subject:** FW: Talking Points for ORD's HHRA meeting today

Heather: I understand that you and Nicole are participating in this call. Please let me know how I can assist you.

Please see the email chain and take special note of Joel's request to mention our work support of work ORD and OP on the benefits evaluation. If you can connect with Erik Helm in advance I think he can give you information about our support for expanded work on dose-response, cost of illness, probability etc.

**From:** Grevatt, Peter  
**Sent:** Wednesday, January 06, 2016 12:21 PM  
**To:** Burneson, Eric <Burneson.Eric@epa.gov>; Clark, Becki <Clark.Becki@epa.gov>; Greene, Ashley <Greene.Ashley@epa.gov>  
**Subject:** FW: Talking Points for ORD's HHRA meeting today

FYI

**From:** Beauvais, Joel  
**Sent:** Wednesday, January 06, 2016 12:00 PM  
**To:** Ohanian, Edward <Ohanian.Edward@epa.gov>  
**Cc:** Gilinsky, Ellen <Gilinsky.Ellen@epa.gov>; Bethel, Heidi <Bethel.Heidi@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>; Corona, Joel <Corona.Joel@epa.gov>  
**Subject:** RE: Talking Points for ORD's HHRA meeting today

Thanks, Ellen and Ed. I don't know if/how this is reflected in the HHRA document, but (as I believe is reflected in the last bullet of your talking points), I would like us to strongly support the Health Benefits initiative that OP and ORD have launched (including expanded work on dose-response, cost of illness, probability etc.). This will be critical for OW's ability to quantify health benefits from our work, and it would be great if we could express strong support. Adding Joel Corona and Macara on that point.

Joel

**From:** Ohanian, Edward  
**Sent:** Wednesday, January 06, 2016 11:15 AM  
**To:** Beauvais, Joel <Beauvais.Joel@epa.gov>  
**Cc:** Gilinsky, Ellen <Gilinsky.Ellen@epa.gov>; Bethel, Heidi <Bethel.Heidi@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>  
**Subject:** Talking Points for ORD's HHRA meeting today

Hi Joel,

Per your request through Heidi this AM, I am attaching my draft talking points for a 4-minute presentation based on the feedback I received from OST and OGWDW on ORD's presentation (attached) earlier. Since I also serve as the Risk Assessment Forum's chair, I added a bullet on

the potential role of HHRA in supporting RAF efforts to promote new/improved risk assessment methodologies (which OW will benefit from). Thanks, Ed

Edward V. Ohanian, Ph.D.

Associate Director for Science

Office of Water (MC: 4301T)

(202) 566-1117 (Voice)

(202) 566-0441(Fax)

**To:** Clark, Becki[Clark.Beki@epa.gov]  
**From:** Helm, Erik  
**Sent:** Wed 10/21/2015 6:12:53 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
OP-ORD Adv.HealthBenefits.pdf

Becki,

Could you please include me in your list of contacts for this new OP-ORD health benefits initiative.

Thanks,

erik

---

Erik C. Helm, Ph.D.  
Senior Economist  
U.S. Environmental Protection Agency  
OW, OGWDW, SRMD,  
Targeting and Analysis Branch  
Mailing Address:  
Mailcode 4607M  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460  
Physical Address (Package Delivery):  
Room 2227N  
1201 Constitution Avenue, N.W.  
Washington, D.C. 20004  
E-mail: [Helm.Erik@epa.gov](mailto:Helm.Erik@epa.gov)  
Ph: 202-566-1049  
Fax: 202-564-3760

**From:** Corona, Joel  
**Sent:** Tuesday, October 20, 2015 6:35 PM  
**To:** Hewitt, Julie <Hewitt.Julie@epa.gov>; Helm, Erik <Helm.Erik@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested



FYI

--

Joel Corona

202-564-0006

**From:** Corona, Joel

**Sent:** Tuesday, October 20, 2015 2:05 PM

**To:** Clark, Becki <[Clark.Beki@epa.gov](mailto:Clark.Beki@epa.gov)>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)>

**Cc:** Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)>

**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Becki/Jeff,

OP and ORD are launching a new effort to advance health benefits quantification, and have requested points of contact within each AA-ship (see email below and attached memorandum). Mike Shapiro has asked that the Water Policy Staff coordinate OW participation. Please share with me by Thursday, October 22, copying Macara, names of people within your office who you would want to have involved in discussing priorities in dose-response and valuation estimates.

Please let me know if you have any questions.

Thanks,

Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

**Subject:** OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Strong, Jamie[Strong.Jamie@epa.gov]  
**From:** Hewitt, Julie  
**Sent:** Thur 10/22/2015 10:35:03 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Ooops. I meant to add your name and I forgot.

**From:** Hewitt, Julie  
**Sent:** Thursday, October 22, 2015 6:33 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Cc:** Conerly, Octavia <Conerly.Octavia@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Behl, Betsy <Behl.Betsy@epa.gov>; Wood, Robert <Wood.Robert@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Zipf, Lynn <Zipf.Lynn@epa.gov>; Goodwin, Janet <Goodwin.Janet@epa.gov>  
**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Joel/Macara,

OST's participants in the short run discussions with OP and ORD include myself, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington. Thanks for including us.

Julie

**From:** Lape, Jeff  
**Sent:** Wednesday, October 21, 2015 5:42 AM  
**To:** Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Behl, Betsy <Behl.Betsy@epa.gov>; Wood, Robert <Wood.Robert@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Zipf, Lynn <Zipf.Lynn@epa.gov>; Hewitt, Julie <Hewitt.Julie@epa.gov>; Goodwin, Janet <Goodwin.Janet@epa.gov>  
**Cc:** Conerly, Octavia <Conerly.Octavia@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

The attached memo from Joel Beauvais and Tom Burke initiates a "collaborative effort to advance health benefits". OW is seeking OST's representation and participation. I suggest

Julie, with HECD's input, determine who and how we should engage.

**From:** Corona, Joel

**Sent:** Tuesday, October 20, 2015 2:05 PM

**To:** Clark, Becki <[Clark.Beki@epa.gov](mailto:Clark.Beki@epa.gov)>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)>

**Cc:** Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)>

**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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Please let me know if you have any questions.

Thanks,

Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Beauvais, Joel

**Sent:** Monday, October 19, 2015 12:26 PM

**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken

**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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Best,

Joel and Tom

**To:** Behl, Betsy[Behl.Betsy@epa.gov]  
**From:** Strong, Jamie  
**Sent:** Thur 10/22/2015 12:30:40 PM  
**Subject:** Fwd: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)  
[ATT00001.htm](#)

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Hewitt, Julie" <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)>  
**To:** "Strong, Jamie" <[Strong.Jamie@epa.gov](mailto:Strong.Jamie@epa.gov)>  
**Cc:** "Flaherty, Colleen" <[Flaherty.Colleen@epa.gov](mailto:Flaherty.Colleen@epa.gov)>  
**Subject:** Fwd: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Jeff has charged me with responding to this request from OP and ORD via Mike Shapiro, who specifically mentioned involving HECD.

There is a 4 page memo attached, but if you don't have time to read it, I can summarize it for you quickly tomorrow. I would like to set up a 1/2 hour meeting on Thursday to discuss our response, which likely includes someone from Jamie's branch. As soon as EZTech returns control of my computer back to me, I will send an invitation. :-)

Sent from my iPhone

Begin forwarded message:

**From:** "Lape, Jeff" <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)<<mailto:lape.jeff@epa.gov>>>  
**Date:** October 21, 2015 at 5:41:54 AM EDT  
**To:** "Southerland, Elizabeth" <[Southerland.Elizabeth@epa.gov](mailto:Southerland.Elizabeth@epa.gov)<<mailto:Southerland.Elizabeth@epa.gov>>>, "Behl, Betsy" <[Behl.Betsy@epa.gov](mailto:Behl.Betsy@epa.gov)<<mailto:Behl.Betsy@epa.gov>>>, "Wood, Robert" <[Wood.Robert@epa.gov](mailto:Wood.Robert@epa.gov)<<mailto:Wood.Robert@epa.gov>>>, "Flaherty, Colleen" <[Flaherty.Colleen@epa.gov](mailto:Flaherty.Colleen@epa.gov)<<mailto:Flaherty.Colleen@epa.gov>>>, "Zipf, Lynn" <[Zipf.Lynn@epa.gov](mailto:Zipf.Lynn@epa.gov)<<mailto:Zipf.Lynn@epa.gov>>>, "Hewitt, Julie" <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)<<mailto:Hewitt.Julie@epa.gov>>>, "Goodwin, Janet" <[Goodwin.Janet@epa.gov](mailto:Goodwin.Janet@epa.gov)<<mailto:Goodwin.Janet@epa.gov>>>  
**Cc:** "Conerly, Octavia" <[Conerly.Octavia@epa.gov](mailto:Conerly.Octavia@epa.gov)<<mailto:Conerly.Octavia@epa.gov>>>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested



The attached memo from Joel Beauvais and Tom Burke initiates a “collaborative effort to advance health benefits”. OW is seeking OST’s representation and participation. I suggest Julie, with HECD’s input, determine who and how we should engage. Here is some of the language describing the effort. I also suggest that Julie gets back to the IO. Also see the language on methods. Thanks

#### Project Descriptors

- launch of a significant joint effort of OP and ORD to strengthen EPA’s work on quantifying health benefits in the context of benefit-cost analysis.
- provide specific dose-response and valuation estimates that address the priority needs of your offices
- work to improve analytical methods in the longer term, helping to make benefits analysis more fully reflect potential health risks

From: Corona, Joel

Sent: Tuesday, October 20, 2015 2:05 PM

To: Clark, Becki <[Clark.Beki@epa.gov](mailto:Clark.Beki@epa.gov)<<mailto:Clark.Beki@epa.gov>>>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)<<mailto:lape.jeff@epa.gov>>>

Cc: Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)<<mailto:Lousberg.Macara@epa.gov>>>

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Please let me know if you have any questions.

Thanks,  
Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)<<mailto:corona.joel@epa.gov>>

From: Beauvais, Joel

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Cc: Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom

**To:** Octavia Conerly[Conerly.Octavia@epa.gov]  
**Cc:** Wood, Robert[wood.robert@epa.gov]  
**From:** Zipf, Lynn  
**Sent:** Wed 1/13/2016 2:56:04 PM  
**Subject:** Health Benefits Priorities Meeting Invite

Octavia – could you please forward the Health Benefits Priorities Meeting today at 12:30 to me from Betsy Southerland’s calendar?

---

Lynn Zipf, Deputy Director

Engineering and Analysis Division

Office of Science and Technology

Office of Water

EPA West Room 6233A

(202) 564-1509

**To:** Hewitt, Julie[Hewitt.Julie@epa.gov]  
**From:** Lousberg, Macara  
**Sent:** Fri 10/23/2015 12:55:55 PM  
**Subject:** Re: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Thanks Julie. I'm still waiting to hear back from OGWDW so I'll respond to OP once I have our complete list of participants.

Macara

Sent from my iPhone

On Oct 22, 2015, at 6:33 PM, Hewitt, Julie <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)> wrote:

Hi Joel/Macara,

OST's participants in the short run discussions with OP and ORD include myself, Jamie Strong, Colleen Flaherty, Bill Swietlik and James Covington. Thanks for including us.

Julie

**From:** Lape, Jeff

**Sent:** Wednesday, October 21, 2015 5:42 AM

**To:** Southerland, Elizabeth <[Southerland.Elizabeth@epa.gov](mailto:Southerland.Elizabeth@epa.gov)>; Behl, Betsy <[Behl.Betsy@epa.gov](mailto:Behl.Betsy@epa.gov)>; Wood, Robert <[Wood.Robert@epa.gov](mailto:Wood.Robert@epa.gov)>; Flaherty, Colleen <[Flaherty.Colleen@epa.gov](mailto:Flaherty.Colleen@epa.gov)>; Zipf, Lynn <[Zipf.Lynn@epa.gov](mailto:Zipf.Lynn@epa.gov)>; Hewitt, Julie <[Hewitt.Julie@epa.gov](mailto:Hewitt.Julie@epa.gov)>; Goodwin, Janet <[Goodwin.Janet@epa.gov](mailto:Goodwin.Janet@epa.gov)>

**Cc:** Conerly, Octavia <[Conerly.Octavia@epa.gov](mailto:Conerly.Octavia@epa.gov)>

**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

The attached memo from Joel Beauvais and Tom Burke initiates a “collaborative effort to advance health benefits”. OW is seeking OST's representation and participation. I suggest Julie, with HECD's input, determine who and how we should engage.

**From:** Corona, Joel

**Sent:** Tuesday, October 20, 2015 2:05 PM

**To:** Clark, Becki <[Clark.Beki@epa.gov](mailto:Clark.Beki@epa.gov)>; Lape, Jeff <[lape.jeff@epa.gov](mailto:lape.jeff@epa.gov)>  
**Cc:** Lousberg, Macara <[Lousberg.Macara@epa.gov](mailto:Lousberg.Macara@epa.gov)>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Hi Becki/Jeff,

OP and ORD are launching a new effort to advance health benefits quantification, and have requested points of contact within each AA-ship (see email below and attached memorandum). Mike Shapiro has asked that the Water Policy Staff coordinate OW participation. Please share with me by Thursday, October 22, copying Macara, names of people within your office who you would want to have involved in discussing priorities in dose-response and valuation estimates.

Please let me know if you have any questions.

Thanks,

Joel

--

Joel Corona, Ph.D.

Water Policy Staff | Office of Water | US EPA

202-564-0006 | [corona.joel@epa.gov](mailto:corona.joel@epa.gov)

**From:** Beauvais, Joel  
**Sent:** Monday, October 19, 2015 12:26 PM  
**To:** McCabe, Janet; Stanislaus, Mathy; Jones, Jim; Kopocis, Ken  
**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise;

Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al;  
Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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With the attached memo, Tom and I appeal for your involvement to guide this initiative and ask that you consider directly participating with us to extend and expedite this work. We'll start by meeting with your key folks over the next month or so to (1) determine specific dose-response and valuation needs that can be met with existing data, and (2) scope needs that can be addressed through longer-term research. We aim to complete these discussions by mid-November and develop specific targets and workplans by early December.

**By Friday, October 23, please send Chris Dockins** ([dockins.chris@epa.gov](mailto:dockins.chris@epa.gov); 566-2286) **contacts** in your offices that you'd want to have engage in a discussion of your office's dose-response and valuation priorities, as well as opportunities to leverage staff and/or other resources. OP staff will provide more information to help your offices prepare for the meetings. Please feel free to contact me or Tom directly or have your staff contact Chris Dockins with any questions and suggestions for meeting attendees.

We look forward to working together to advance our collective ability to more fully characterize health benefits of EPA's regulations and actions.

Best,

Joel and Tom



**To:** Hewitt, Julie[Hewitt.Julie@epa.gov]  
**From:** Lape, Jeff  
**Sent:** Fri 10/23/2015 10:20:41 AM  
**Subject:** RE: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

Thanks Julie.

**From:** Hewitt, Julie  
**Sent:** Thursday, October 22, 2015 6:33 PM  
**To:** Corona, Joel <Corona.Joel@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>  
**Cc:** Conerly, Octavia <Conerly.Octavia@epa.gov>; Lape, Jeff <lape.jeff@epa.gov>; Southerland, Elizabeth <Southerland.Elizabeth@epa.gov>; Behl, Betsy <Behl.Betsy@epa.gov>; Wood, Robert <Wood.Robert@epa.gov>; Flaherty, Colleen <Flaherty.Colleen@epa.gov>; Zipf, Lynn <Zipf.Lynn@epa.gov>; Goodwin, Janet <Goodwin.Janet@epa.gov>  
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**Cc:** Burke, Thomas; Garbow, Avi; Giles-AA, Cynthia; Shaw, Betsy; Wise, Louise; Breen, Barry; Shapiro, Mike; Etzel, Ruth; Vandenberg, John; McGartland, Al; Dockins, Chris; Axelrad, Daniel; Rennert, Kevin; Kime, Robin

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**To:** Allen, Ashley[allen.ashley@epa.gov]  
**From:** Hewitt, Julie  
**Sent:** Wed 10/21/2015 10:59:05 PM  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested  
[OP-ORD Adv.HealthBenefits.pdf](#)

FYI

**From:** Corona, Joel  
**Sent:** Tuesday, October 20, 2015 6:35 PM  
**To:** Hewitt, Julie <Hewitt.Julie@epa.gov>; Helm, Erik <Helm.Erik@epa.gov>  
**Subject:** FW: OP-ORD Joint Effort to Advance Health Benefits Quantification - Response Requested

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Joel Corona

202-564-0006

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